Published in final edited form as:
Adolesc Med State Art Rev. 2011 December ; 22(3): 441–xi.

Employment and Training Programs: A Context for Reaching Out of School Youth with Mental Health and Other Health Programs

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Abstract

Youth who have dropped out of school engage in health risk behaviors and have low access to health care. It is difficult for health experts to develop programs that successfully reach this population. Employment and training programs for youth who have dropped out are a potential venue for addressing the many health needs of these youth. This article reviews the history of these programs and the available evidence about their health services and health outcomes. It also describes the development of a mental health intervention in an employment and training program in Baltimore and the lessons learned from that experience.

Introduction

Schools are often the setting of choice for preventive health interventions for adolescents because they reliably house a large portion of the nation's teenagers. Many youth, however, leave school before graduation, and this is especially true for teenagers in impoverished inner city schools. Public schools in the United States graduate an estimated 71% of their students, but the share is substantially lower at 53% for the public schools in the 50 largest cities in the country.[1] Nationwide, an estimated 3.5 million youth were school dropouts in 2007.[2,3] These youth who leave school early can remain untouched by even the most excellent prevention efforts in the nation's high schools. Our article focuses on implementing health promotion interventions for youth who have left school.

It is important to target out-of-school youth with prevention services because they are known to have higher levels of health risk. Research on youth who drop out indicates that they have higher levels of health problems and less access to health services than those who stay in school. In a study of 7000 teenagers conducted by the Centers for Disease Control and Prevention (CDC) high-school dropouts were much more likely than their in-school peers to engage in risk behaviors like smoking, using illegal drugs, and having unprotected sex. Also dropouts had significantly less access to health care than in-school youth.[4] Other

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research indicates that pregnancies, as well as psychological and emotional problems, are implicated as some of the reasons students drop out.[5]

Although many health experts acknowledge that school dropouts are an important group to reach with health promotion and disease prevention programming, the challenge is how to reach these youth. One potential venue is youth employment and training programs designed to give youth who have dropped out of school second chances to complete their education, gain job skills, and to connect them to employment opportunities. A recent study by the Government Accounting Office (GAO) identified five major job training programs for youth funded by the federal government with $4.2 million appropriated in 2009. The two largest programs run by the US Department of Labor are the WIA (Workforce Investment Act) Youth Activities, serving 282,426 individuals, and the Job Corps, serving 59,357 individuals. The other three, YouthBuild, National Guard ChalleNGe Program, and Conservation Activities by Youth Service Organizations, serve 18,241 youth.[6,7] There is currently concern that funding for these programs may be cut as Congress deals with the federal budget deficit, but it is clear that an infrastructure delivering youth employment and training services currently exists in communities around the country.

Prior Research on Health Programming in Employment and Training Programs

Integrating health and health promotion into youth employment training programs is not a new concept. In 1964 as a part of Lyndon Johnson's War on Poverty, the Economic Opportunity Act of 1964 authorized the Job Corps, a national residential training program for 14- to 21-year-olds from low-income backgrounds, and the Neighborhood Youth Corps, which served the same population but kept young people in their home communities. Program administrators for both the Job Corps and the Neighborhood Youth Corps were quick to recognize the health needs of program participants and to incorporate programming to address those needs.[6–11] In the 1960s, as today, the health issues contributing to disengagement from school also created barriers to full engagement in employment and training programs.

Since the 1960s, a number of rigorous evaluations of youth employment and training programs have been conducted. A recent survey of this literature identifies eleven such programs.[3] Seven of these evaluated programs provided some health services in concert with the employment and training activities, although only three offered comprehensive health programming. The other four programs offered only support services and/or case management through which young people were referred for health services external to the program. Three of the seven programs with some health services were targeted to teenage mothers with the goal of delaying subsequent births before the young women became economically self-sufficient. Table 1 describes the 11 programs with rigorous evaluations.

The findings from these program evaluations regarding improvements in health outcomes are mixed. One of the programs providing comprehensive health programming, the Job Corps, offered medical exams and treatment; testing for drug use, sexually transmitted diseases, and pregnancy; dental care; counseling services; and basic health education. The

impact evaluation, which examined outcomes 48 months after random assignment, found that the program successfully reduced participants' involvement with the criminal justice system, and participants were less likely than the control participants to rate their overall health as "poor" or "fair." However, there were no program impacts on substance use or childbearing, 4 years after random assignment.[12]

Although offering less comprehensive health services than Job Corps, both New Chance for teenage mothers and the National Guard Youth ChalleNGe Program offered curricula to program participants that included life skills and health education. The New Chance evaluation did not report positive significant health outcomes.[13] The ChalleNGe evaluation found positive program impacts for arrests among participants as well as for self-reported health and obesity status.[14] Although both programs offered curricula including life skills and health education, they differed on intensity and the population served. ChalleNGe offered a more intense program as it was a 22-week residential program and the participants had to be drug free and not heavily involved with the juvenile justice system upon entry. On the other hand, New Chance enrolled teenage mothers, and participants spent about 300 hours in the program. More than one-third of the participants in the evaluation, however, participated for less than 100 hours.[3,14]

The two other programs for teenage mothers with case management and support rather than onsite health services (the Ohio Learning, Earning and Parenting Program, and the Teenage Demonstration Program) found that the programs had no significant impact on subsequent childbearing.[15–17] The evaluation of Jobstart, which also had case management and support services, found significantly less use of drugs (other than marijuana) among program participants compared to youth in the control group.[18] The American Conservation and Youth Service Corps evaluation found fewer arrests for program participants versus control group members. In addition, male participants scored significantly higher on a scale of personal and social responsibility compared to control group members.[19]

As these results indicate, most of the rigorously evaluated youth employment and training programs have included programming or referrals to address some of the health needs of the participating youth. The results in terms of improved health outcomes, however, have not been consistently positive. Moreover there is other literature on the integration of health services and health promotion into youth employment and training programs that has focused on some of the barriers to this type of programming that may hinder success. These include lack of available community health services to treat health problems once programs identify them, lack of motivation among youth participants to seek health care or to act on health promotion, fear of health services, transportation difficulties and competing priorities, and tight budgets within the agencies. [9] These barriers still exist today.[20]

The bottom line is that although there is clear evidence that youth who drop out of school are an important group to focus health promotion and prevention effort, previous efforts working with youth employment and training programs have met with limited success in terms of improving health outcomes. Believing that the health problems of this group of youth should not be ignored and additional efforts should be made to address their health issues, the Community Advisory Board of the Johns Hopkins Center for Adolescent Health

in 2003 urged the Center faculty and staff to deepen their partnership with the largest youth employment and training program in Baltimore City. The rest of the article focuses on how this partnership has developed and what we have learned.

YO! Baltimore

In 2000, the US Department of Labor initiated the Youth Opportunity (YO) program under the Work Force Initiative Act and awarded more than $1 billion over five years to implement comprehensive training, education, and social services for youth ages 14 to 21 in high poverty neighborhoods in 36 cities. The Mayor's Office of Employment Development in the city of Baltimore successfully competed to gain one of these grants. The YO grant initiative was intended to focus concentrated resources in selected impoverished communities and to enrich the employment and training services with a more intensive and comprehensive array of supports with the goal of improving outcomes for the larger community, as well as for the youth participating in the program. Key features of the program model included the establishment of YO community centers to provide safe and accessible places for youth to meet and be served; the application of a positive youth development conceptual framework to the delivery of support services; long-term engagement of the youth; and the leveraging of resources through partnerships with public, private, and nonprofit organizations to broaden the scope of services and to enhance the probability of program continuation after the grant period ended. The evaluation design for this program did not include an experimental framework and as a result, the program was not highlighted in the review of rigorously evaluated programs described earlier. An evaluation by Russell and colleagues using propensity score matching to national sample survey data found that YO increased the labor force participation rate overall, especially for younger program participants, female participants, African American participants, and native- born youth. The evaluation did not include an assessment of health outcomes.[21]

In Baltimore, the YO program was titled YO! and was initiated in two high poverty areas, one on the Westside of the city and one on the Eastside. Two large centers were set up, and in addition the program included three satellite program sites. After the federal funding expired in 2005, a more limited program continued in the Westside YO! and Eastside YO! centers with support from the city and private funders. At present, about 300 out-of-school adolescents and young adults ages 16 to 22 are enrolled in each center. The Johns Hopkins University Center for Adolescent Health began working with the YO! program soon after it was funded when it was asked by the Baltimore City Health Department to develop a health screening form that could be used by health educators to assess all program participants' needs for health services. A computer-based form was developed and implemented by a health educator who rotated through the program sites.[22] At the Westside YO! program, the Baltimore City Health Department also co-located a health suite to provide clinical services, but this was not possible to do on the Eastside because an appropriate physical space was not available when the program began. Although the health assessment provided information about the health needs of the screened participants, the major drawback was that only a portion of the caseload was screened because of the lack of personnel to catch program participants as they enrolled in the program in the five sites.

In 2003, the Center for Adolescent Health's Community Advisory Board agreed that this partnership should be expanded and that the Center should develop a health promotion intervention (unspecified in terms of focus) in the Eastside YO! Program, which is located close to the Johns Hopkins Medical Campus, as a core research project for its CDC Prevention Research Center grant application. Once funded, the development of this project followed the principles of community-based participatory research[23] and proceeded in three phases. The project's first phase, lasting 12 months, focused on gathering more information about needs in order to identify the intervention's focus. Focus groups were conducted with project participants, in-depth interviews were implemented with the staff of the YO! program, and data from the health screenings that had been conducted were examined. The results of these assessments were summarized and presented to the project's advisory group composed of YO! program participants, staff, and leadership, as well as representatives from the Center's community advisory board and Johns Hopkins University faculty beyond the Bloomberg School of Public Health with expertise in education and employment and training programs. A facilitator led the group through a prioritization process with the group deciding that the intervention should focus on mental health issues as the top priority and that the intervention should include a peer-led component. One of the main reasons for this choice was the evidence from the focus groups and staff interviews that mental health issues constituted major barriers for youth in fully participating in the program and achieving educational and training goals. We should note that going into the meeting the Center researchers did not have a priori opinions about what form the intervention should take. The health screen data had indicated several areas of health risks for YO! participants.[24]

In its second phase, the project began to take shape programmatically. A faculty member who was a community psychologist was recruited, faculty from the Department of Mental Health at the Bloomberg School of Public Health were consulted and engaged, a full-time project coordinator was hired, and four peer leaders who were recent YO! program graduates were selected and hired to help plan and implement the project. The following criteria for peer leaders were developed by the HOPE Advisory Board: African American adolescent or young adult, successful completion of YO center programmatic activities, strong recommendations from YO center staff, and interest in facilitating mental health groups. YO center alumni who met these criteria and were able to commit to attending regular training sessions were recruited as peer leaders. Trainings consisted of weekly informational sessions regarding mental health and service utilization among their peers. The youth called themselves the Peer Leadership Group The group consisted of 4 African American adolescents and young adults—2 male and 2 female. The peer leaders were paid for their time on the project as consultants to the Center for Adolescent Health. Ultimately, two of these leaders became full-time staff at the Center.[25]

Efforts in the second year focused on improving the initial health screening and follow-up processes, developing and implementing training for the YO! staff about mental health issues, and adapting and implementing a peer-led curriculum aimed at reducing depression among at-risk program participants. During this time the project advisory committee met regularly to discuss and recommend action steps as the project evolved.

Mental Health Screening

In order to facilitate the screening of all YO! program entrants, a decision was made to shift from relying on a part-time health educator to screen some of the participants at program entry to using audio computer-assisted self-interviewing (ACASI) for all youth entering the program. An ACASI allows individuals to sit at a computer, hear all questions on headphones while questions appear on a computer screen, and use simple keyboard commands to provide answers. In experimental studies ACASI methodology has been found to improve reporting of such stigmatized behaviors as drug use, violence, and homosexual behavior compared to using paper and pencil self-administered surveys.[26] The improved reporting is believed to occur because of the privacy associated with computer administration and the minimization of problems with reading comprehension. The peer leaders were given the responsibility of recruiting and consenting all youth entering the program. Over the course of the project the ACASI has been integrated into YO!'s intake process for new enrollees, making it a seamless and comprehensive part of YO!'s standard operating procedure. Specifically, after completing other enrollment components (e.g., assessment of education level), the case advocate assigned to a YO! member introduces the participant to a screen coordinator, who introduces and administers the ACASI. The ACASI improved on the original general health screening tool by including more and better questions about various mental health topics such as depression, anxiety, stress, post-traumatic stress disorder (PTSD), social support, and attitudes toward mental health services. A key consideration was how to handle participants who scored especially poorly on the mental health measure and might be at immediate risk of harm. In response to this concern, a critical element of the ACASI process was the creation of a "short report" generated immediately after ACASI completion that summarizes results pertaining to each ACASI topic (e.g., depression, stress, alcohol use) and is sent electronically to the on-site mental health clinician.

Depression Prevention Intervention

There was considerable interest among project partners in implementing peer-led mental health activities with the rationale that adolescents and young adults often prefer peers as sources of help and advice over professionals. After reviewing available interventions for this population, Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS) was selected as the basis for our depression prevention intervention. SPARCS is based on three empirically validated interventions that were adapted and integrated to address topics specifically relevant to adolescents exposed to chronic stress: Dialectical Behavior Therapy for Adolescents, Trauma Adaptive Recovery-Group Education and Therapy, and School-Based Trauma /Grief Group Psychotherapy Program. Project staff, community partners, and the peer leaders worked together to adapt SPARCS to increase its relevance for YO! members by including additional content related to community violence, mental health stigma, and emotional expression.[25] Our adapted version of SPARCS was a 9-week curriculum named the "SOS Club" by our peer leaders. During the SOS Club, core skills are introduced during each intervention session, with earlier skills being referenced in subsequent sessions. Each skill aims to improve adolescents' and young adults' ability to accurately gauge their emotions and cope more effectively with stressful situations. Several

sessions discuss maladaptive coping strategies, reasons why these maladaptive strategies are used, and alternative adaptive coping strategies. YO! members who scored in the moderate range on the Center for Epidemiologic Studies Depression Scale (CES-D)[26,27] on their ACASI were recruited by peer leaders for the SOS Club. The 9-week SOS Club curriculum was delivered on a weekly basis by two trained peer leaders with a mental health clinician present at intervention sessions.

Mental Health Education/Training for YO! Staff

A two-day intensive training was developed and provided to the YO! staff to help them better (a) understand mental health issues facing YO! members, (b) understand the role mental health plays in healthy adolescent development, (c) engage in conversations around mental health with YO! members, (d) understand the range of mental health services available to YO! members, and (e) encourage YO! members to obtain mental health services. All staff at YO! were trained, including case advocates who work intensively with YO! members on their education and employment plans, General Equivalency Diploma (GED) instructors, job developers, administrative staff, security personnel, and reception staff. None of the staff had previous formal training in mental health. Training was conducted by academic researchers and community mental health providers. The focus of each training was to provide YO! staff with specific skills, approaches, and resources to address their members' mental health needs. For example, a key barrier to YO! members' use of mental health services is stigma associated with mental health services; training included discussions of the ways YO! staff could normalize the experience of using mental health services.

The evaluation of this phase of the project primarily focused on assessing the process of implementation and on comparing pre- and post-measures of mental health outcomes. Participants were assessed at program entry using the ACASI health screen, and they were followed and re-interviewed at 12 months post program entry. The YO! management information system provided additional information about services provided by YO! staff. In addition, a paper case file review was conducted pre- and post- the intensive mental health training sessions with the YO! staff to assess whether discussions of mental health and referrals to mental health providers increased after the training occurred.

In its third phase, starting in 2008, the project truly came to fruition as the details of implementing the intervention into the YO! program were more fully worked out and the range of services was deepened with the infusion of funds from a 3-year grant to the Historic East Baltimore Action Coalition, the operator of the Eastside YO! program, from the Robert Wood Johnson Foundation and matching funds from five local foundations. The existence of a functional academic-community partnership, the preliminary testing of the project components described earlier, and the availability of evaluation data were strengths that helped make the proposal to these private foundations successful. The new and improved project gained a new name, Healthy Minds at Work (HMAW). In addition to continuing and adapting the three project components described earlier, two more essential components were added.

On-site Mental Health Services

To provide mental health services to YO! members, two full-time licensed clinical social workers now have offices at YO!. Additionally, a child and adolescent psychiatrist is on site five hours per week to meet with any members who the social workers believe are in need of medication for more severe mental health concerns. Previous work by Center investigators had found that more than half of YO! members exhibited elevated depressive symptoms, as defined by the well-established cutoff of > 16 on the CES-D.[27] Depressive symptoms were, therefore, used as the basis for triaging YO! members for mental health services. YO! members with low symptoms (CES-D < 10) are recommended to only receive the initial visit with the on-site clinician, whereas members with moderate symptoms (CES-D 10–24) and severe symptoms (CES-D > 24) are recommended to receive six and eight one-on-one cognitive behavioral therapy sessions, respectively. Importantly, all YO! members are referred to the on-site clinicians after ACASI completion regardless of depressive symptomatology. This is done in recognition of the fact that YO! members are exposed to a significant number of acute stressful events (e.g., witnessing a shooting or stabbing, being physically attacked) that may result in greater need for services even if baseline depressive symptoms were relatively low. By introducing all YO! members to the mental health clinicians, YO! members know who these clinicians are and where they are located, thereby enhancing the likelihood that they seek out a clinician if a life event triggers increased stress. The mental health clinicians also attend the orientation sessions for all newly enrolling YO! members to introduce themselves and provide a brief description on topics about which they can assist members. These introductions at orientation sessions are also intended to demystify conceptions of mental health clinicians that YO! members may have.

Psychoeducational Activities

A range of psychoeducational activities are also now provided to YO! members to address key barriers to the receipt of mental health services (e.g., stigma, misinformation about mental health services, negative attitudes toward services) and provide concrete skills and approaches that YO! members can use in their daily lives. During early implementation of HMAW, several psychoeducational activities were offered, but feedback from YO! members and the recognition that a smaller set of core activities was more manageable for staff and members has led to the implementation of four specific psychoeducational activities: (1) anger management workshops, (2) healthy relationship workshops, (3) stress management workshops, and (4) Monday morning check-ins. Each workshop is offered on a weekly basis at the same time and is open to any YO! member. For the first three activities, content rotates each week but does not require attendance at previous sessions to encourage greater participation across YO! members. Monday morning check-ins are conducted each Monday morning as informal discussion groups where members can discuss any stressful or traumatic events that may have occurred over the weekend. Thus, these check-ins are intended to help members recognize and address issues that may inhibit them from fully engaging in the education and employment at YO!. For all four activities, members can attend as regularly as they would like depending on their schedules and interest level. The mental health clinicians facilitate these activities with peer leaders also attending each activity and playing a supporting role.

The evaluation design for Healthy Minds at Work has been greatly strengthened through the addition of a comparison group, the Westside YO! program, and the addition of 6-month follow-up data in addition to 12-month follow-up. The decision to follow-up program participants more frequently, at 6-month intervals, provides more rapid feedback and also reduces the number of program participants who are lost to follow-up. For each program participant there are now screening data collected at program entry; follow-up information collected through an interview at 6 and 12 months post-program entry; and program data about participation in the different components of the program, including the SOS clubs, mental health visits, and employment and training activities.

Findings

The evaluation is ongoing, but information is available about how well mental health services have been integrated into this employment and training setting. Between November 2008 and March 2011, 675 individuals have enrolled in the Eastside YO! program. Ninety-one percent of these enrollees have completed the ACASI health screening, and many of those screened have elevated scores on the measures of psychosocial risk. As shown in Figure 1, more than one-third (36 %) of the enrollees exhibited depressive symptoms measured by a score of 16 or greater on the CES-D scale.[27] Ten percent exhibited anxiety symptoms measured by a score of 16 or greater on the Beck Anxiety Inventory.[28] Female program participants exhibit more problems with depression and anxiety than male program participants. Forty-four percent of the enrollees showed PTSD symptoms measured by a score on the PTSD Checklist-Civilian Version (PCL-C) scale of 30 or higher; there were no differences by gender on this measure.[29] Across the entire sample, 12% of enrollees exhibited problem alcohol use on the CAGE Inventory.[30] and 44% reported using marijuana in the last 30 days.

As shown in Figure 2, almost all (89%) of the YO! participants who completed the health screen have been referred to the on-site mental health counselors, and three-fourths of the latter group (74%) have had at least one mental health visit. As would be desired, the percentage of YO! participants receiving at least one mental health visit is highest (83%) for participants screened as being in the severe depression range. Among YO! participants eligible for the SOS Club due to moderate depressive symptom scores at baseline, 42% received one or more SOS Club sessions. Our findings indicate that mental health issues are very prevalent among the out-of-school youth who come into the Baltimore YO! program seeking help to complete their education and to gain employment skills. Further, we have shown that mental health screening and services can be integrated into settings such as this one. The follow-up surveys that are now being completed with the intervention and comparison group participants will provide information about whether the intervention described earlier results in higher levels of psychological functioning. We will further examine whether employment and training outcomes are higher among intervention participants.

Lessons Learned

As indicated earlier, most of the rigorously evaluated youth employment and training demonstration programs have acknowledged the health needs of their out-of-school population by providing some health programming or referrals to off-site health services. The primary types of health programming included in these programs have been health education and family planning information and referral. Other than the Job Corps, we are not aware of another effort like the one being implemented in Baltimore to address directly the mental health issues of this group of youth.

We believe that a number of the lessons learned from our work integrating mental health into employment and training programs in Baltimore could be useful for other efforts to integrate health programming more generally into youth employment and training programs. Any effort to integrate ancillary health services into employment and training programs such as the work described in this article needs to recognize that achieving better health outcomes is a secondary objective for these programs. The primary objective of employment and training programs is to assist adolescents and young adults in achieving educational and employment goals. To make the case for integrating health services into such programs, it is crucial to emphasize that program participants have substantial health issues that likely impede participants' engagement in program activities and their ability to achieve educational and employment milestones. Further, because health services are a secondary objective for employment and training programs, any health programming must be flexibly integrated into the ongoing operations of the program so that the normal flow of activities is not disrupted.

The intervention we describe has been developed and implemented over time in full partnership with the host program and, thus, is responsive to the needs of program administrators. Health screening in the YO! program began as a sporadically occurring event conducted by a health educator who rotated across several program sites. Now the screening occurs as a standard part of the intake process and some of the personnel time needed for conducting the actual screening has been reduced through the use of ACASI. Further, screening data is immediately provided to mental health clinicians to guide the types of mental health services in which the young person is encouraged to participate. The ACASI screening data have also provided reliable information about the very high levels of mental health problems and other health problems faced by program participants. This information has been useful to the program to justify requests for additional resources.

Although automation reduces personnel time spent interviewing program participants about health risks, it has not totally reduced the need for someone to make sure that every new program entrant is screened. With automation the person in charge of screening is now able to direct more effort to making sure every person entering the program is screened, to identify and refer high-risk clients immediately, and to make sure that *every* young person, not just the high-risk youth, entering the program is introduced to the mental health counselor. We believe that the screening and referral processes now in place are critical to the attainment of the high levels of participation in mental health counseling that we are now

seeing in the program. Among the population served by this program, mental health services are highly stigmatized. The process now followed normalizes the referrals for everyone.

Co-locating health programming in youth employment and training programs requires thinking about how clients will routinely get to these new services and developing procedures that work within the host setting. Thought of in another way, it requires attending to the structural environment of the employment and training setting and determining ways to integrate services in ways that respond to its structures, policies, and norms rather than integrating services that may be “best practices” but not contextually appropriate. The participatory process used to develop this intervention has been critical to the continual improvement of the service delivery mechanisms. As described earlier, the actual choice of the intervention focus was made in collaboration with program staff and participants. Further, all program components were collaboratively developed and refined across time as needs and solutions became apparent. Continuous communication and weekly team meetings ensured that all partners participated in the planning and implementation decisions. The availability of data from the health screening system, the mental health counselor’s data systems and the program’s management information system made it possible to identify problems early and devise new approaches to addressing these problems.

We also believe that participation of peer leaders, who were recent graduates of the program, in the development of the screening instrument, the procedures for recruitment and follow-up, and the development and implementation of the SOS curriculum has been critical to tailoring the program activities to the young people in the program. Without their full participation in the planning process and their continuous feedback the program could have quickly lost its relevance to the youth we sought to “help.” The use of peer leaders also highlights the importance of taking advantage of naturally existing resources within the context in which our work is being conducted. Moreover, hiring peer leaders as Johns Hopkins University employees contributed to the program’s employment objectives and offered a small group of YO! graduates with their initial job upon completing the YO! program.

Engaging all the program staff has also been a crucial element of full integration into the program. The initiation and continuation of in-service training about mental health issues and services for all the staff working in the program from the security personnel to the case advocates, the GED teachers and the job developers has meant that more discussion of mental health issues occur with case advocates and more referrals are made to mental health services [30]. By engaging everyone on site, all staff has increased their knowledge and skills related to addressing mental health issues.

Interviews conducted with YO! staff suggest favorable views toward the mental health intervention. Quotes from YO! Case Advocates illustrate this perspective:

“Well they benefit on a large scale of ways, because first of all, these are free services to them. And it is not just sitting and talking to someone, like they have the SOS. They have the healthy relationships. And if clinicians feel as if though they would benefit more by seeing someone on a higher level, then they have that in addition.”

"They will find positive ways of coping with their mental health instead of always relying on alcohol, weed, or any other drug or substance that they use."

"It's going to help our members to be able to focus more in the class room, to maintain employment, to get through the job readiness process. They're going to be more self-aware. They're going to understand what it means to be healthy in all aspects of their life."

Conclusion

Based on our experience working with the Baltimore YO! program we have found that employment and training programs are very suitable to reaching out-of-school youth with needed health interventions. Of course, generalizing our findings beyond this particular program can only be done with great caution. The youth in the Baltimore program have many health needs. Reports summarizing challenges faced by other employment and training programs serving adolescents and young adults suggest the health concerns—particularly mental health concerns—faced by youth in Baltimore are not unique.[20,32] We have documented our findings relative to mental health, but other colleagues at Johns Hopkins have developed smoking and sexual and reproductive health interventions to address the high levels of risk-taking documented in those areas.[33]

Employment and training programs like YO! serve both young men and women; in Baltimore the ratio is close to 1 to 1. Male youth who have dropped out of school are particularly difficult to reach with health programming because they are less likely to have insurance or to avail themselves of clinical services compared to females, some of whom visit sexual and reproductive health services.[34] Job training and employment connection services, such as those offered by employment and training programs, are particularly attractive to young men, making such programs one of the few venues where male youth disconnected from usual health-care resources (e.g., schools, clinics) can be reached.

As we have noted, integrating health services and supports into youth employment and training programs is a challenging but very feasible option. Working in partnership with these programs and their participants, the substantial health needs of the youth they serve can be addressed. It remains to be seen whether health and economic self sufficiency outcomes for these youth are improved as a result. Our preliminary results are promising, but we are awaiting the completion of all our 12-month follow-up interviews to begin to answer this question.

Acknowledgments

This work was supported by the Centers for Disease Control and Prevention (Grant #: U48 DP001919-01), Robert Wood Johnson Foundation, France-Merrick Foundation, Jacob and Hilda Blaustein Foundation, Leonard & Helen R. Stulman Charitable Foundation, The Aaron Straus & Lillie Straus Foundation, The Abell Foundation, and The Annie E. Casey Foundation. The authors would like to thank Margaret Gifford Tucker, the research coordinator for Healthy Minds at Work, for her contributions to this paper.

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	Overall	Gender		Age	
		Male	Female	< 18	≥ 18
Depressive Symptoms (% CES-D ≥ 16)	36	31	43	35	37
Anxiety Symptoms (%) (% BAI ≥ 16)	10	8	14	10	10
PTSD Symptoms (%) (% PCL-C ≥ 30)	44	43	46	41	46
Problem Alcohol Use (%) (CAGE ≥ 2)	12	11	12	12	12
Marijuana Use Last 30 days (%)	44	52	36	44	44

Figure 1.

Percentage of YO! Members With Depression, Anxiety, PTSD, and Substance Use Symptoms at Time of YO! Enrollment (11/2008-3/2011)—Overall, By Gender, and By Age (N = 614)

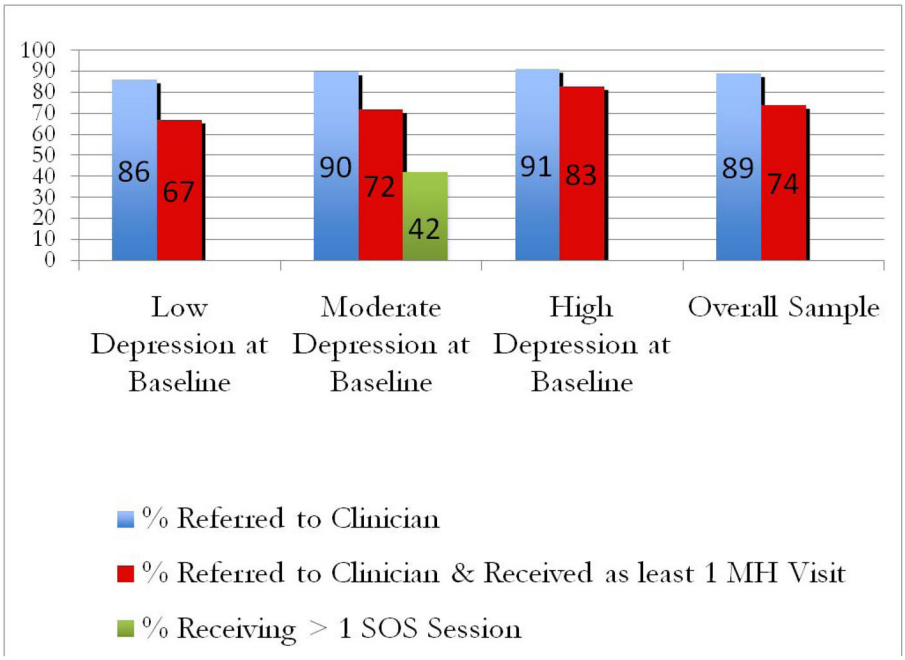

Figure 2.

Percentage of YO! Members Referred to Mental Health Counselor and Receiving At Least One Mental Health Visit, by Depression Severity

Table 1

Selected Rigorously Evaluated Youth Employment and Training Programs for Youth Aged 14 to 25

Program (dates)	Target Population	Sample Size	Health Programming	Health Outcomes Measured
Job Corps	16- to 24-year- old disadvantaged youth	11,787 participants	Social skills training, health care, and health education	Life skills, physical health, behavioral problems, and reproductive health
National Guard Youth ChalleNGe	16- to 18-year- old out-of- school youth	1507 participants	Curriculum including life- coping skills, physical fitness, and health	Physical health, behavioral problems, reproductive health, social and emotional health, and mental health
New Chance	Mothers age 16- to 22- years-old who had a teen birth	2322 participants	Life skills and opportunities curriculum, health education and services, family planning, and adult survival skills	Social and emotional health, life skills, mental health and reproductive health
Teenage Demonstration Program	Teenage mothers receiving AFDC (Aid for Dependent Children)	5297 participants	Case management	Behavioral problems, reproductive health, social and emotional health, and life skills
Ohio Learning, Earning and Parenting Program	Teenage mothers receiving AFDC	7017 participants	Case management	Life skills and reproductive health
Jobstart	17- to 21-year- old out-of- school youth	1839 participants	Case management	Behavioral problems and reproductive health
American Conservation and Youth Service Corps	Young adults who are out of school	626 participants	Case management	Behavioral problems and social/emotional health

Data adapted from Bloom D. Programs and policies to assist high school dropouts in the transition to adulthood. *The Future of Children*. 2010;20(1):95.